

$$F_{\nabla} = 2\pi \cdot r^3 \frac{\sqrt{\epsilon_B}}{c} \left( \frac{\epsilon - \epsilon_B}{\epsilon + 2\epsilon_B} \right) (\nabla \cdot I)$$

$F_{\nabla}$  = Optical force on particle towards higher intensity

$r$  = Radius of particle

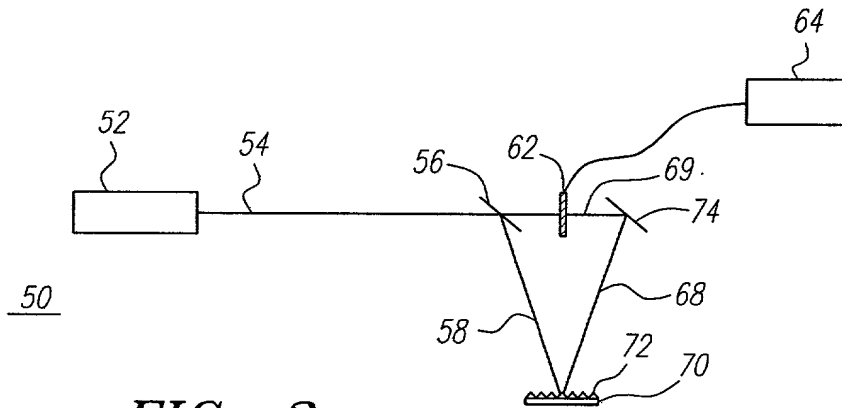
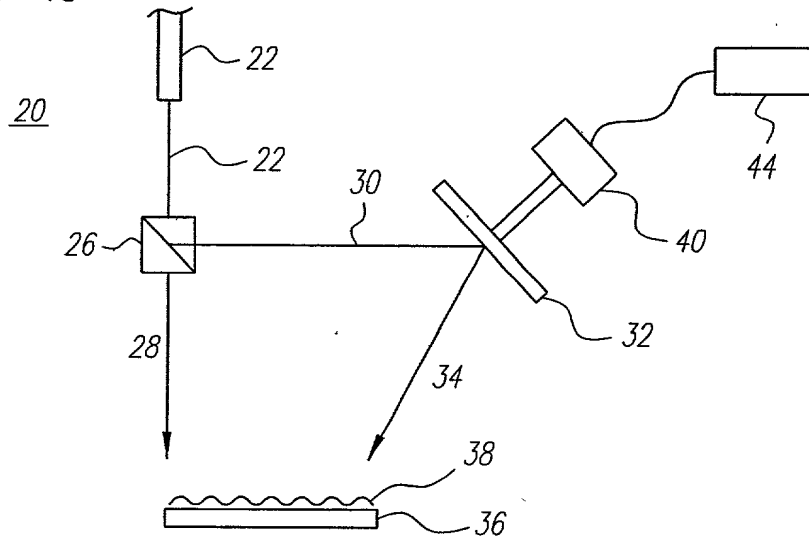
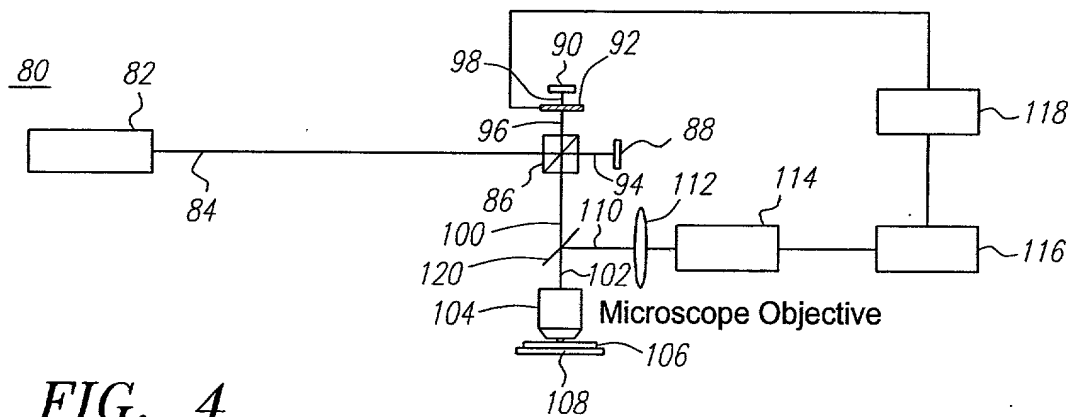
$\epsilon_B$  = Dielectric constant of background medium

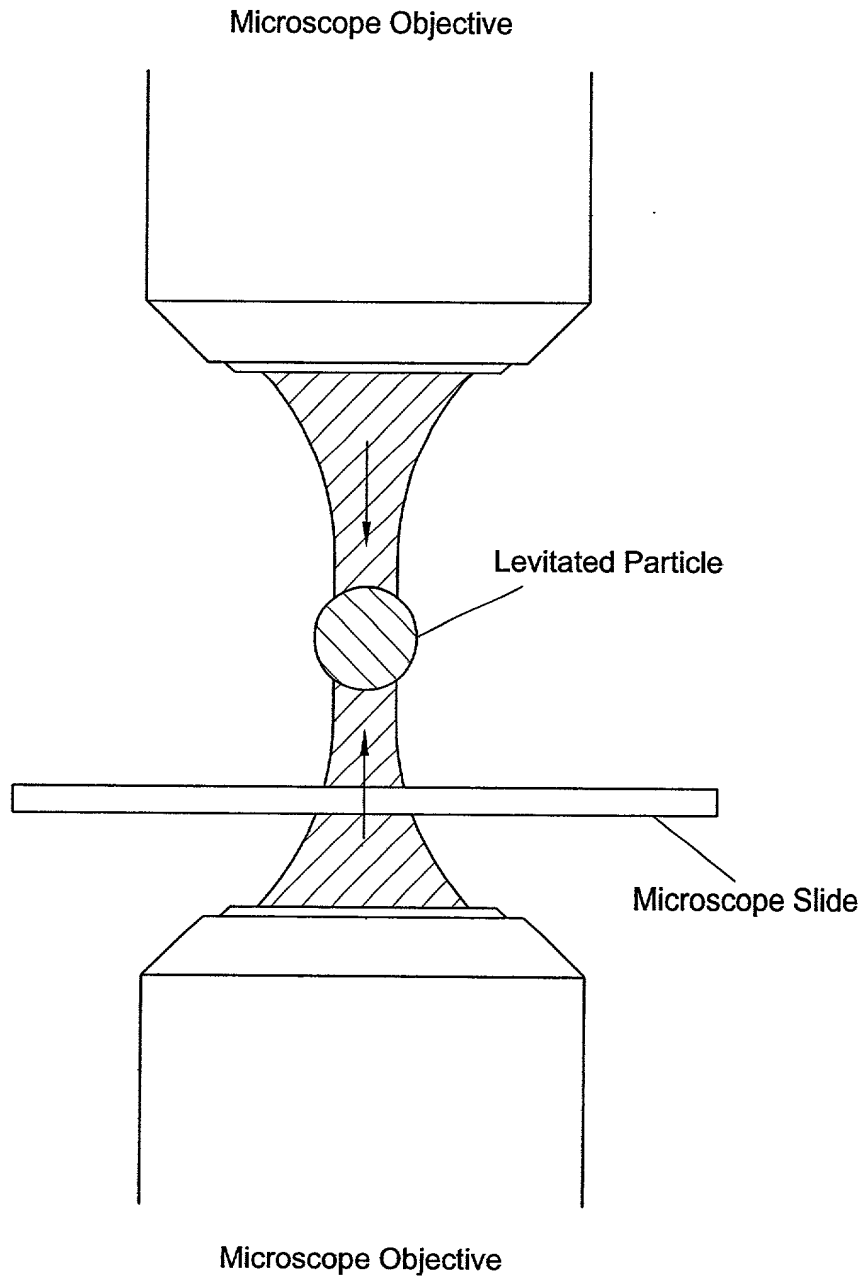
$\epsilon$  = Dielectric constant of particle

$I$  = Light intensity ( $\text{W}/\text{cm}^2$ )

$\nabla$  = Spatial derivative

**FIG. 1**

**FIG. 2****FIG. 3****FIG. 4**



**FIG. 4A**

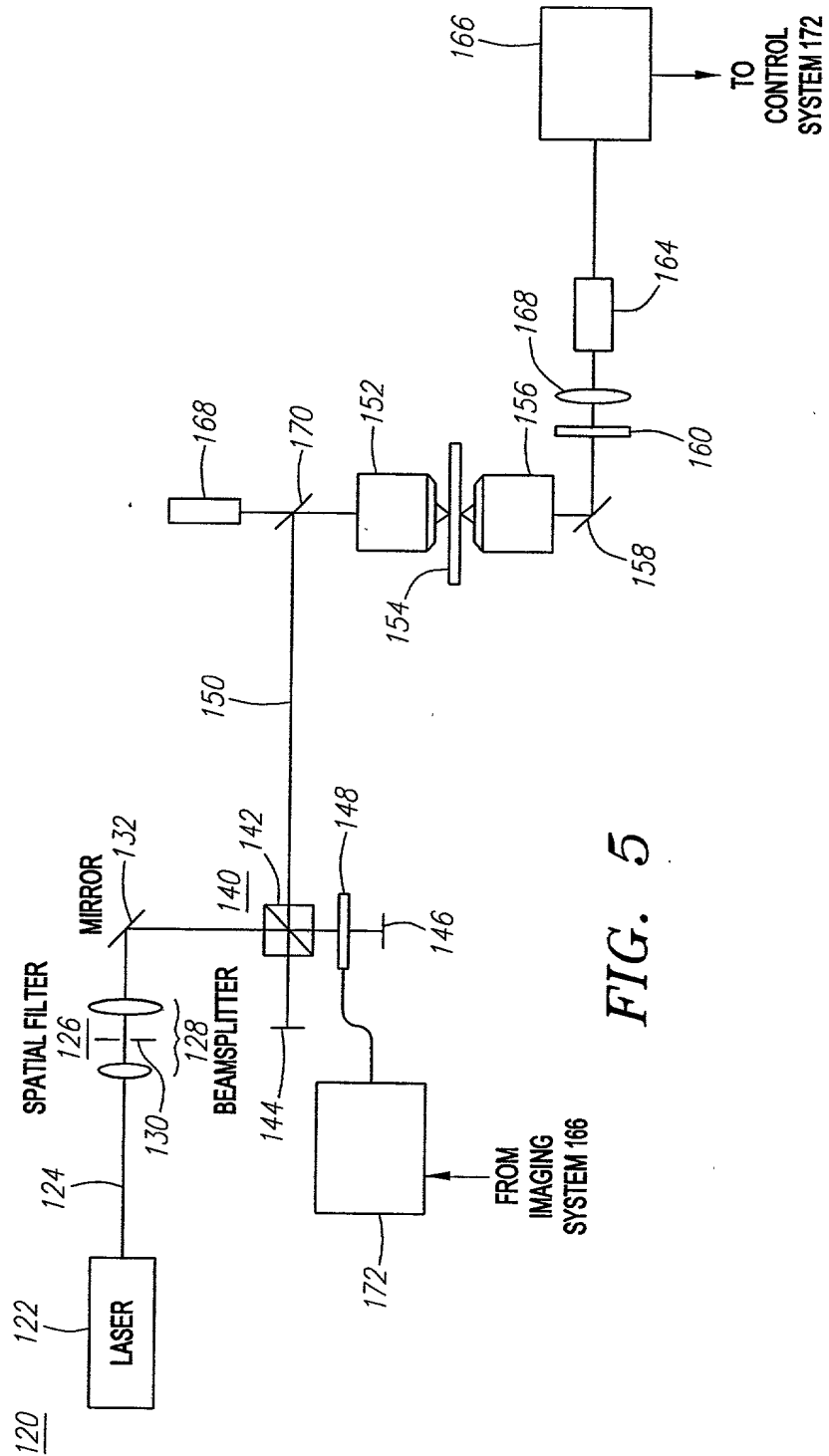


FIG. 5

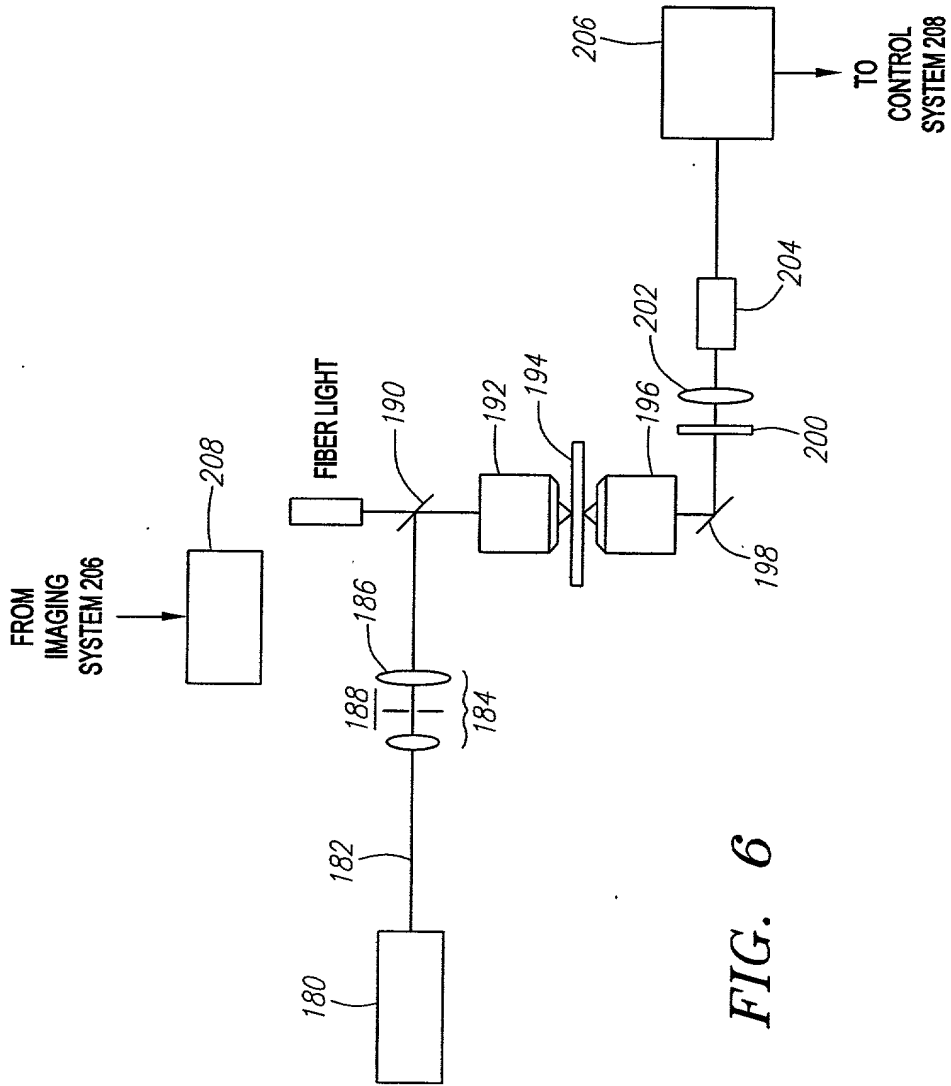


FIG. 6

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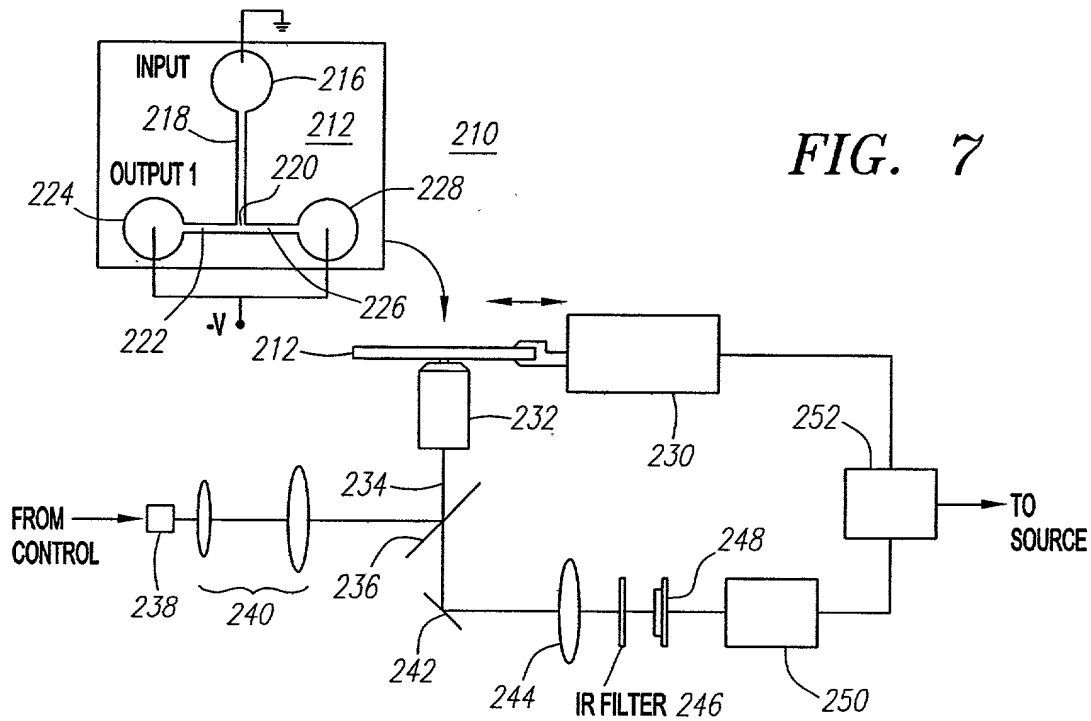
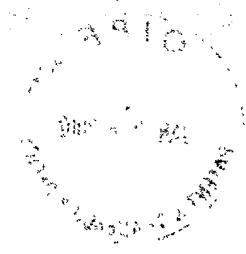
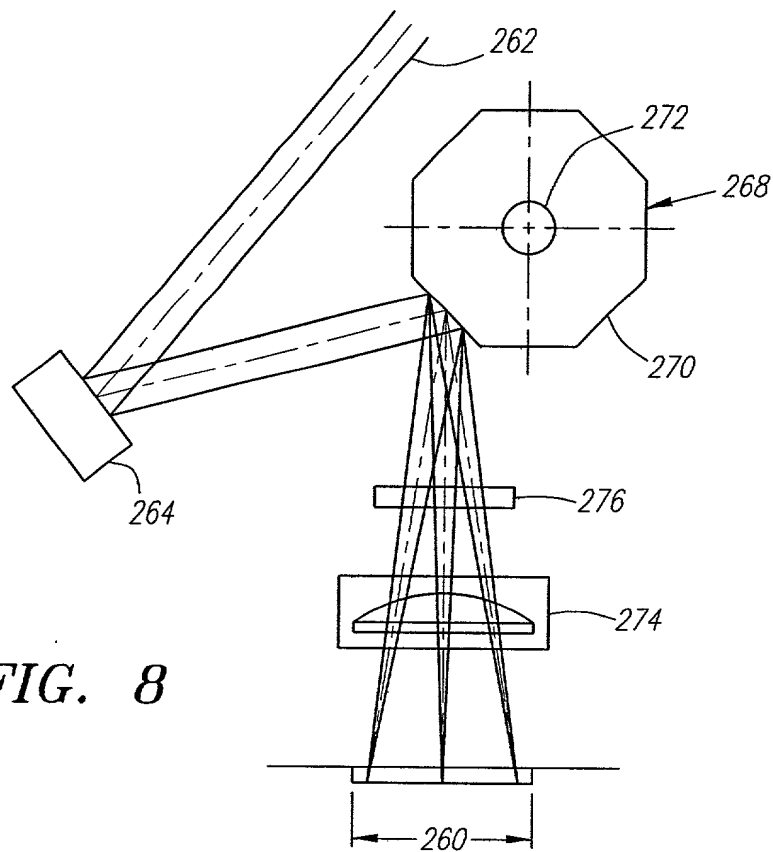


FIG. 8



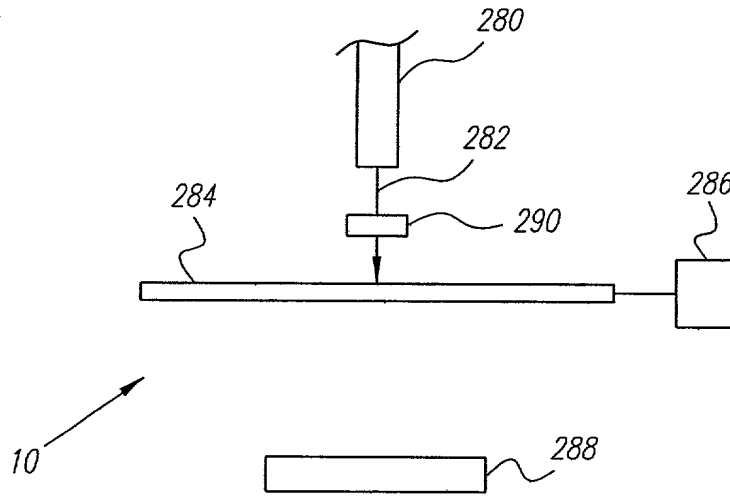


FIG. 9A

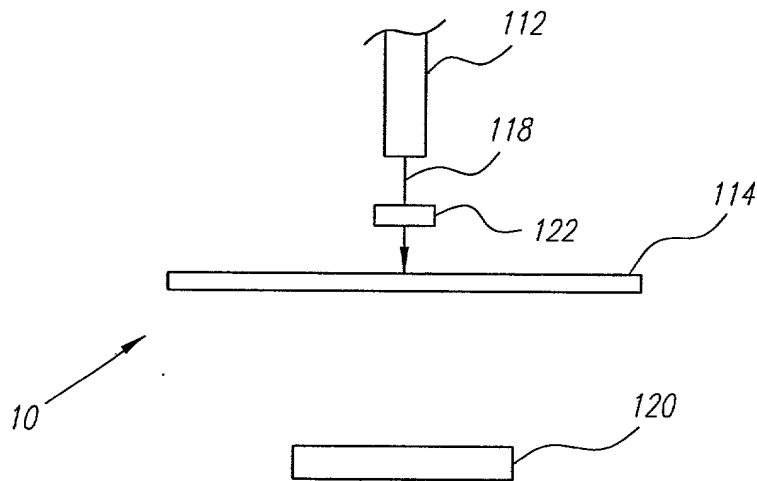


FIG. 9B

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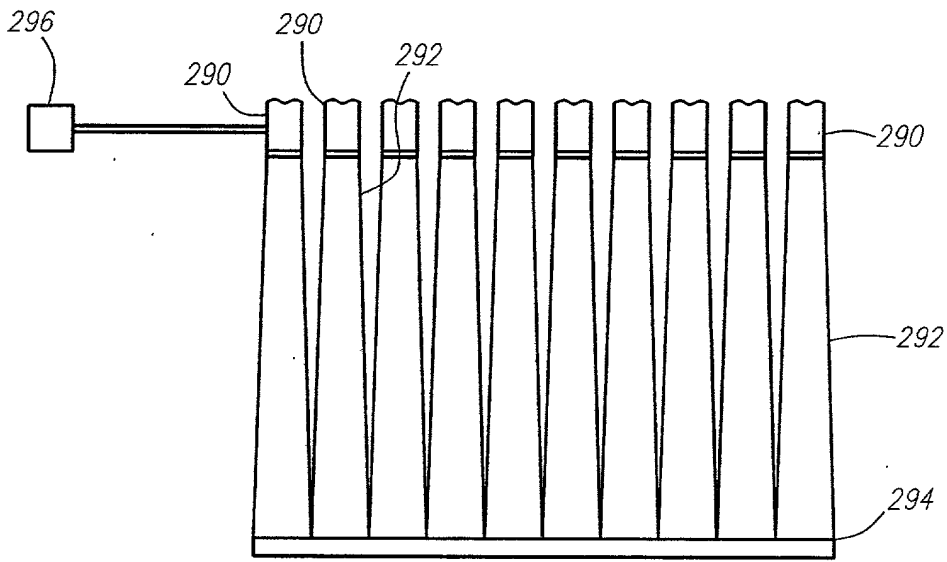
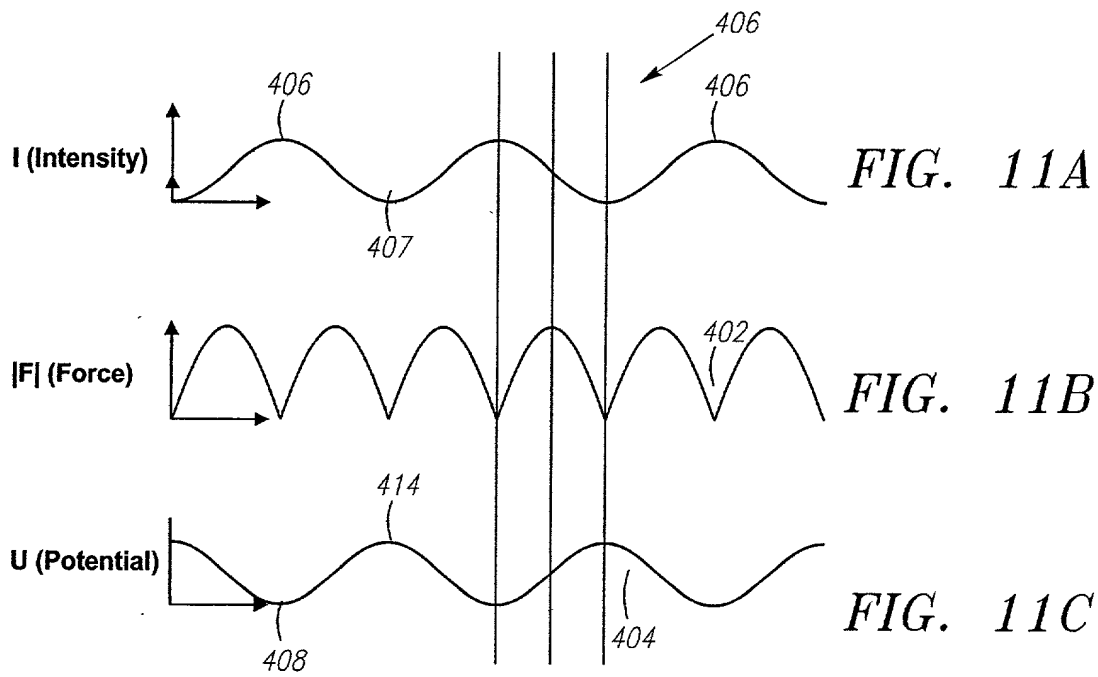


FIG. 10





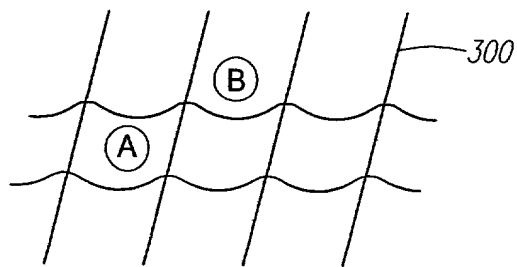


FIG. 12A

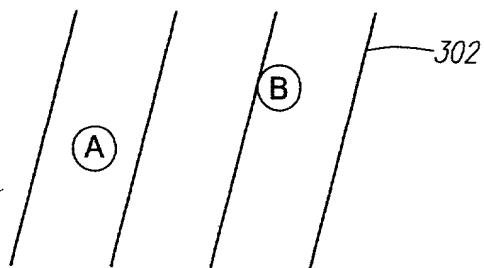


FIG. 12B

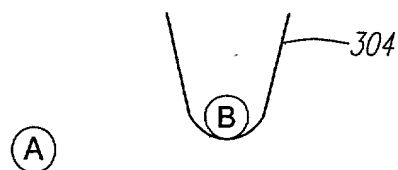


FIG. 12C

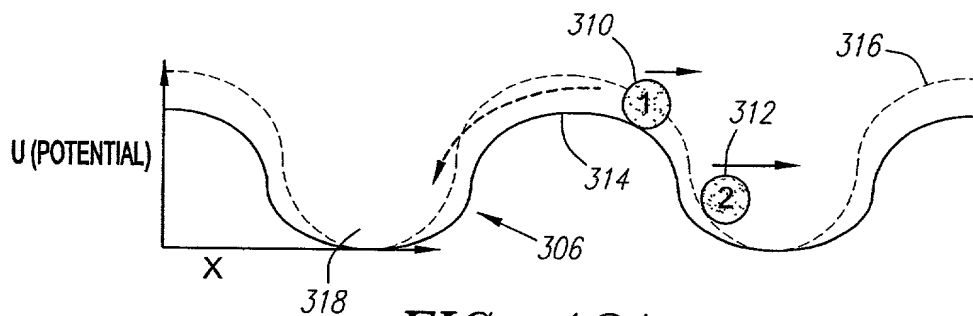


FIG. 13A

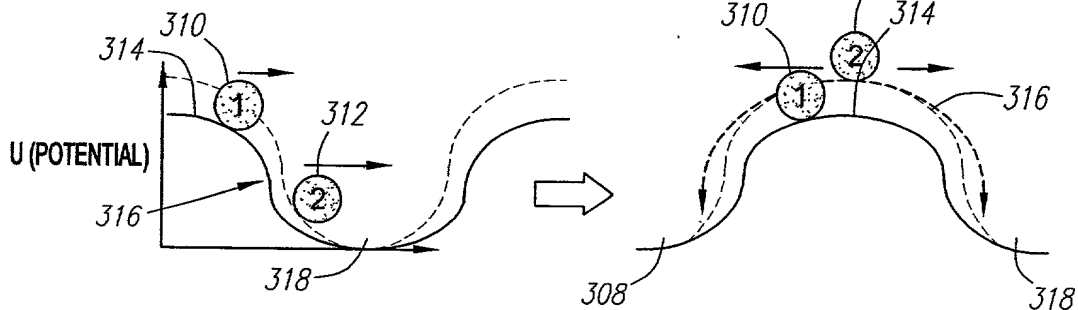


FIG. 13B

FIG. 13C

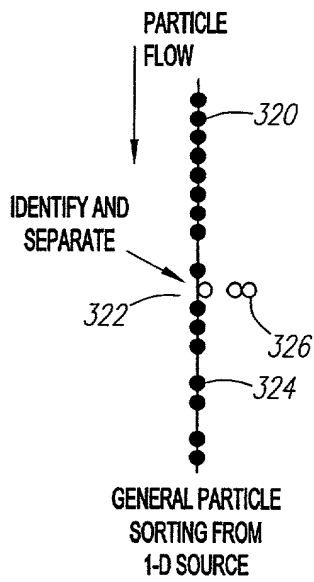
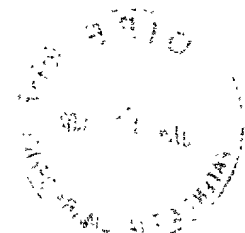


FIG. 14A

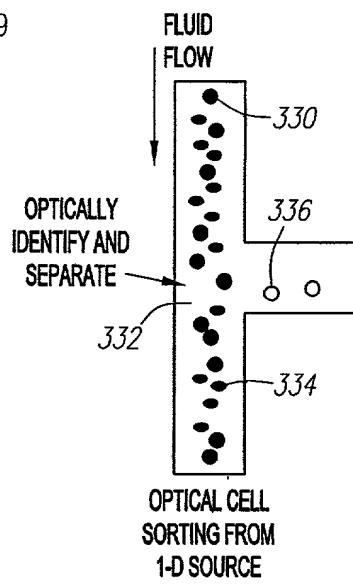


FIG. 14B

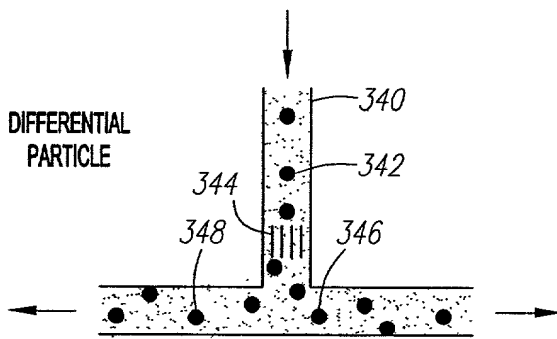


FIG. 15

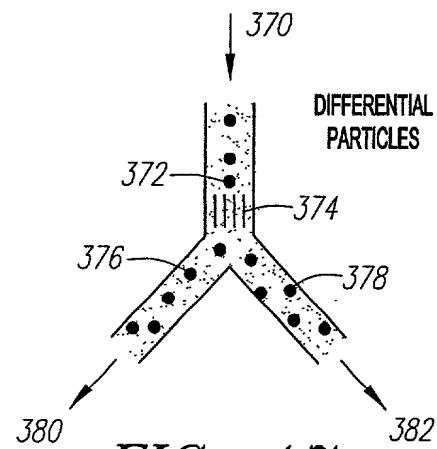


FIG. 17

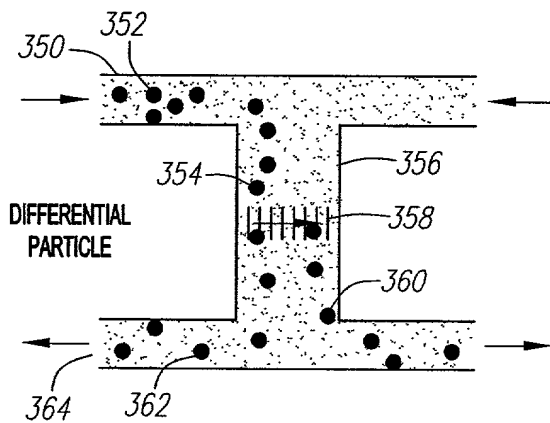


FIG. 16

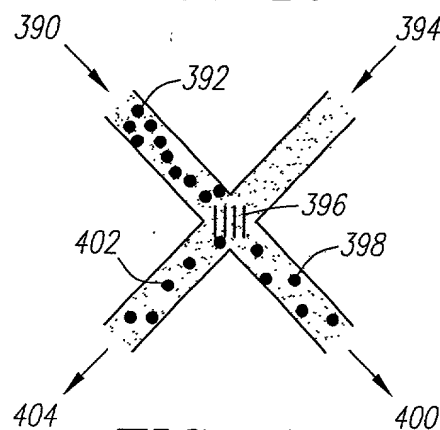


FIG. 18

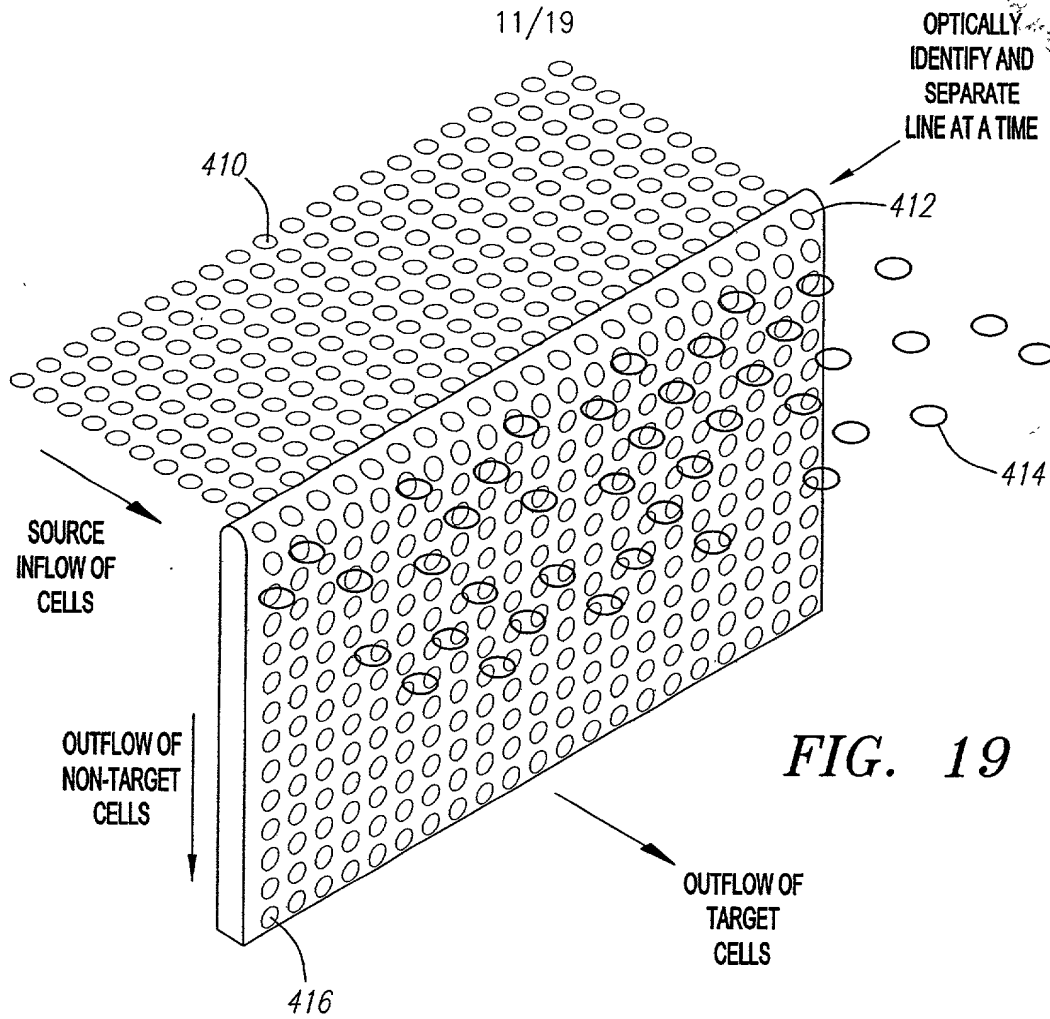


FIG. 19

FIG. 20

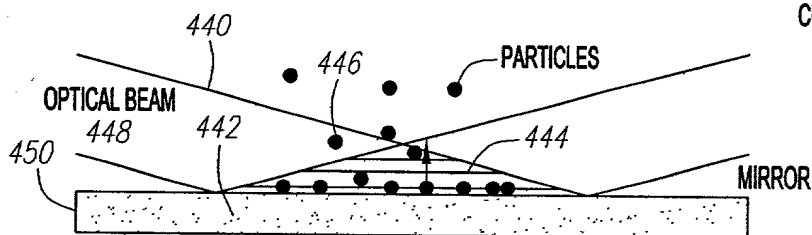
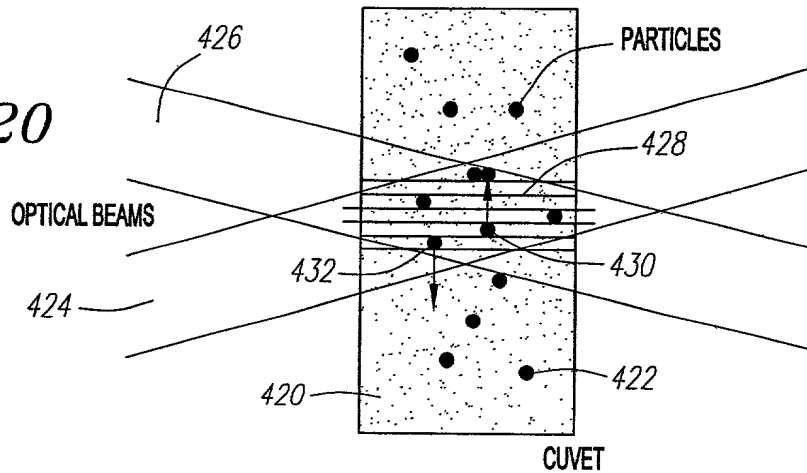


FIG. 21

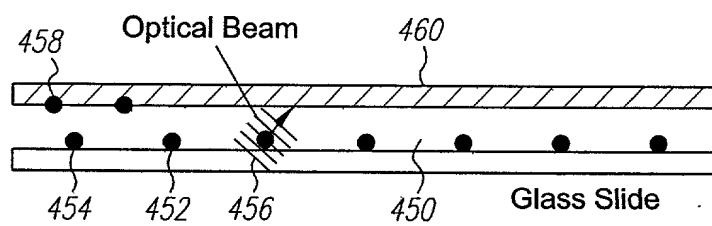
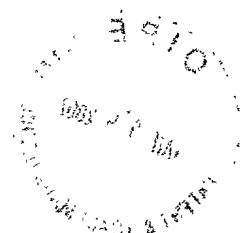


FIG. 22

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FBI - NEW YORK

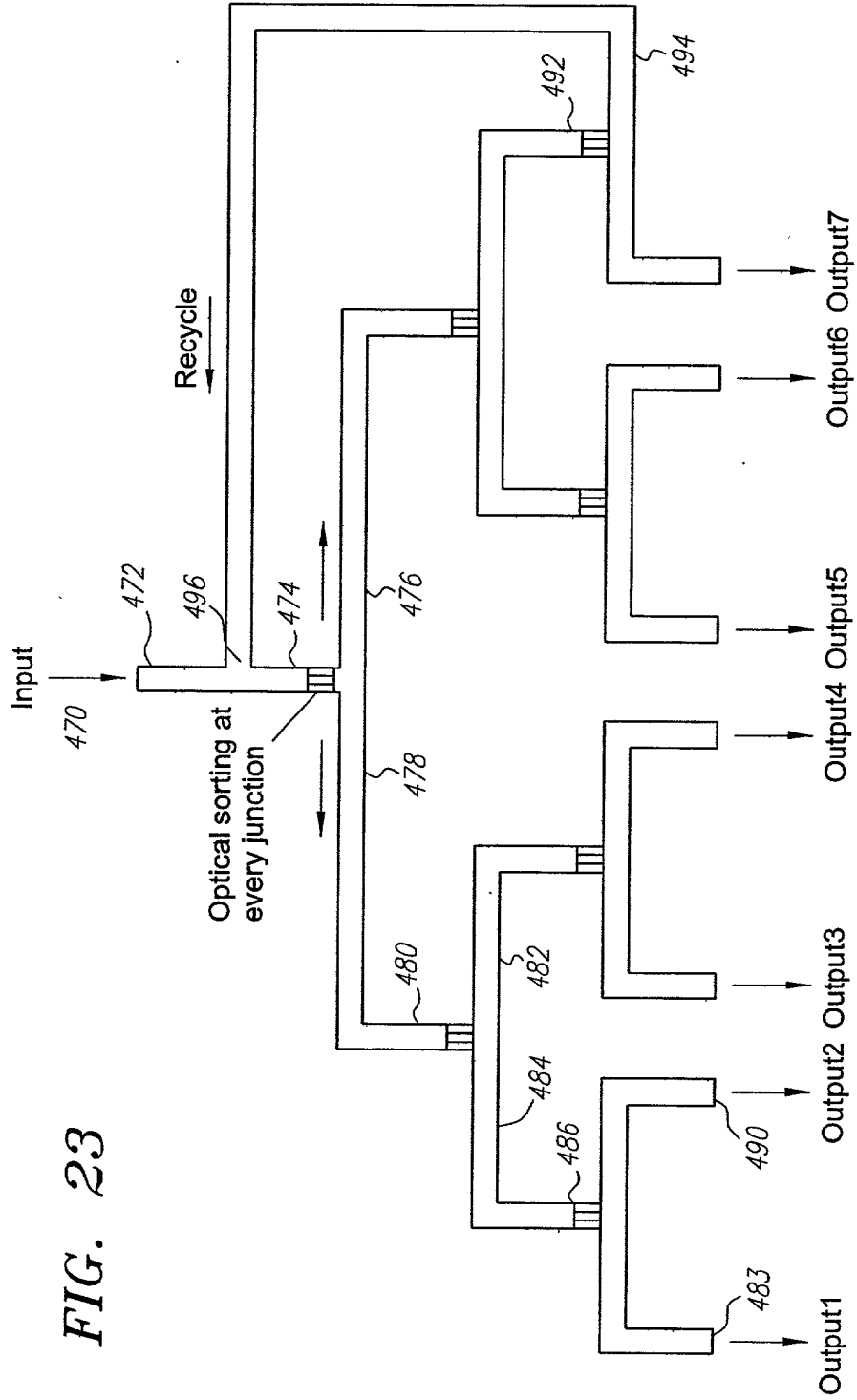


FIG. 23

2000-03-09 10:00:00

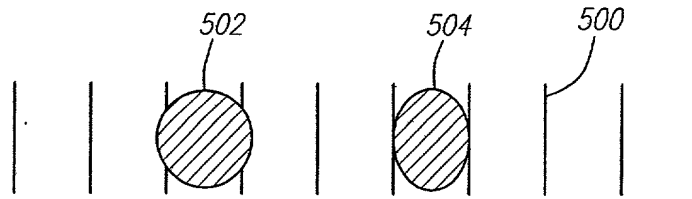


FIG. 24

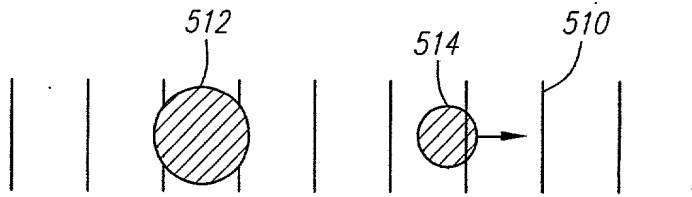
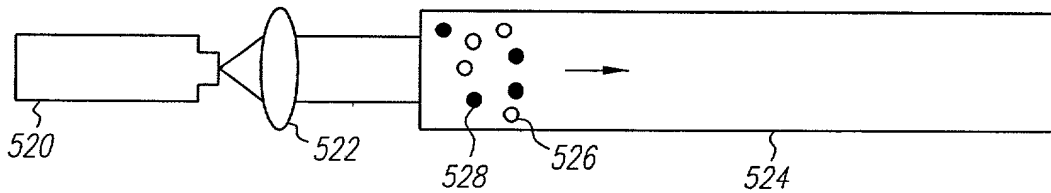


FIG. 25

Before:

SCATTER FORCE SEPARATION



After:

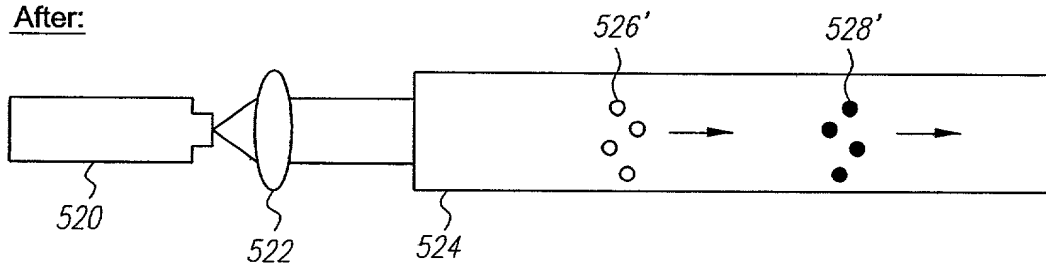


FIG. 26

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 1990 JUN 20  
 15/19

FIG. 27A

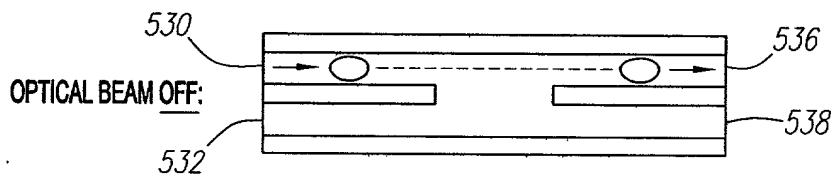
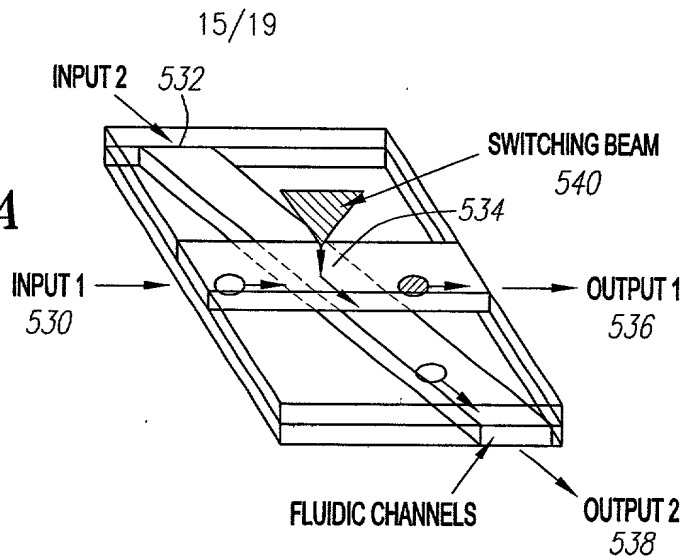


FIG. 27B

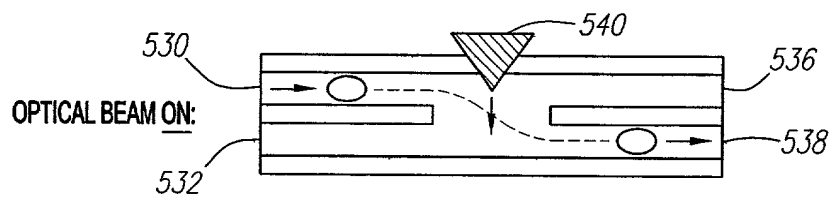


FIG. 27C

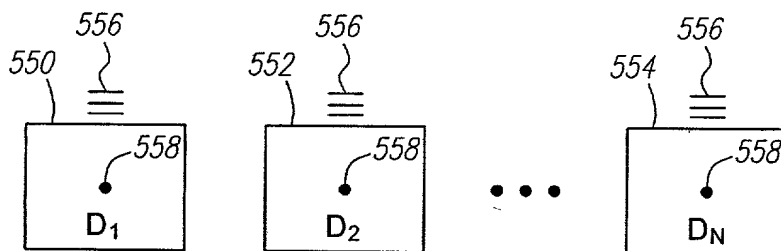
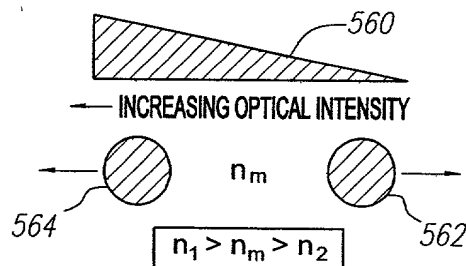
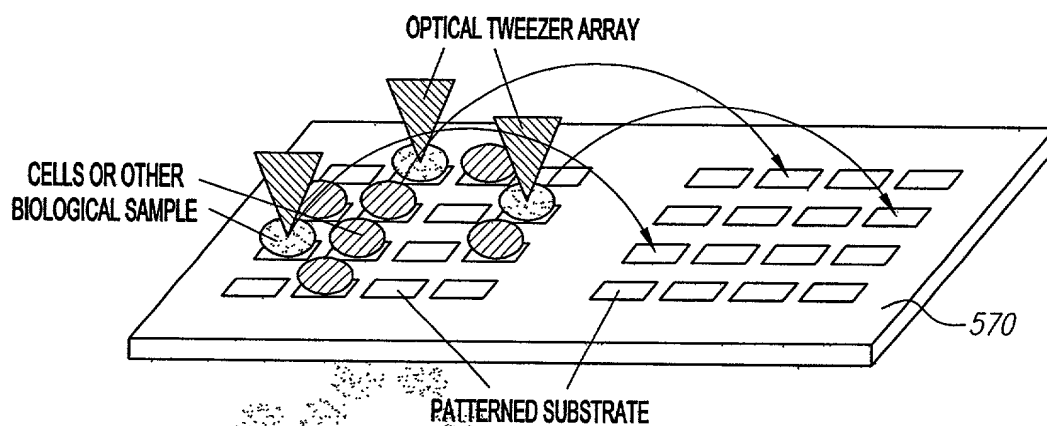
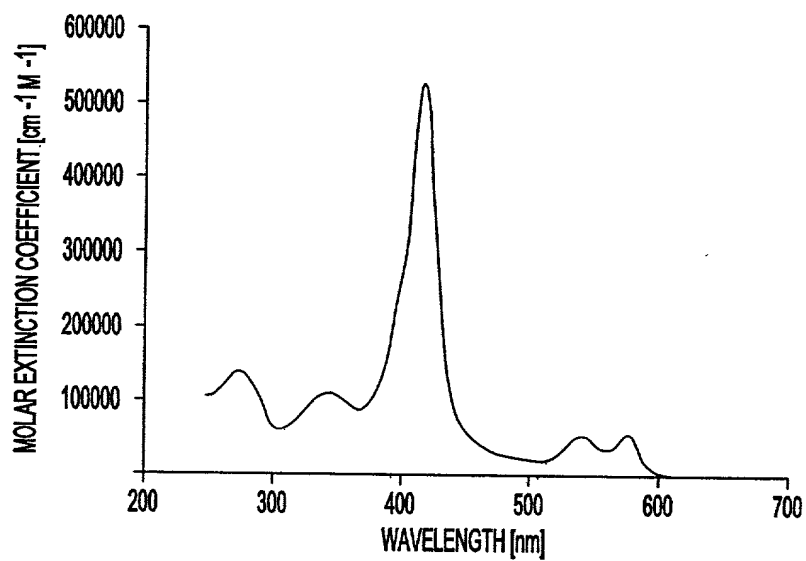


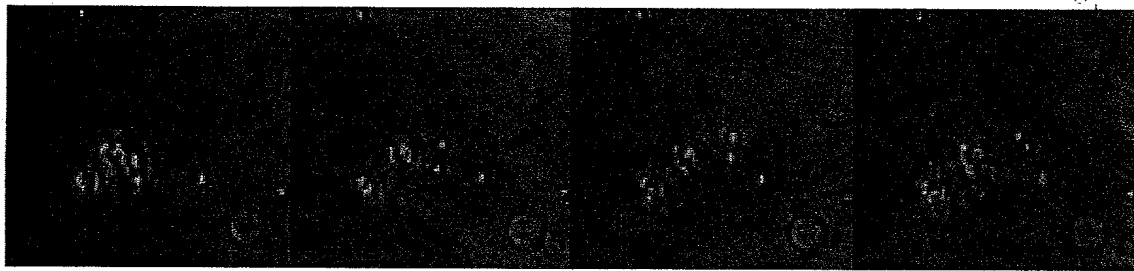
FIG. 28

FIG. 29

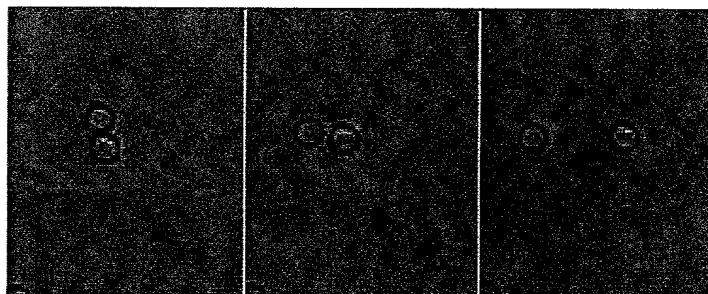


*FIG. 30*HEMOGLOBIN - O<sub>2</sub> ABSORPTION SPECTRUM*FIG. 31*

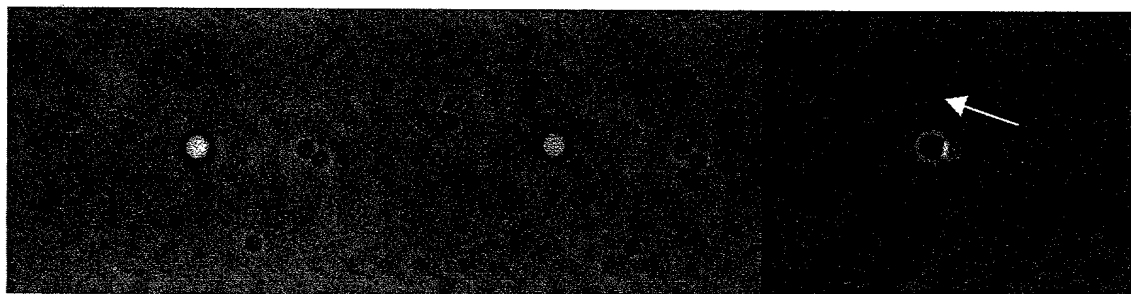




*FIG. 32*



*FIG. 33*

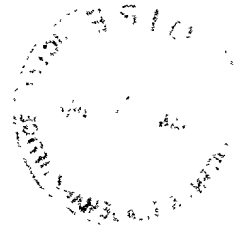


Before

After

Difference

*FIG. 34*



DISTRIBUTION OF ESCAPE VELOCITIES  
 READING TAKEN IN PBS/1% BSA BUFFER  
 RAIN-X COATED SLIDE/CYTOP COATED COVERSIP

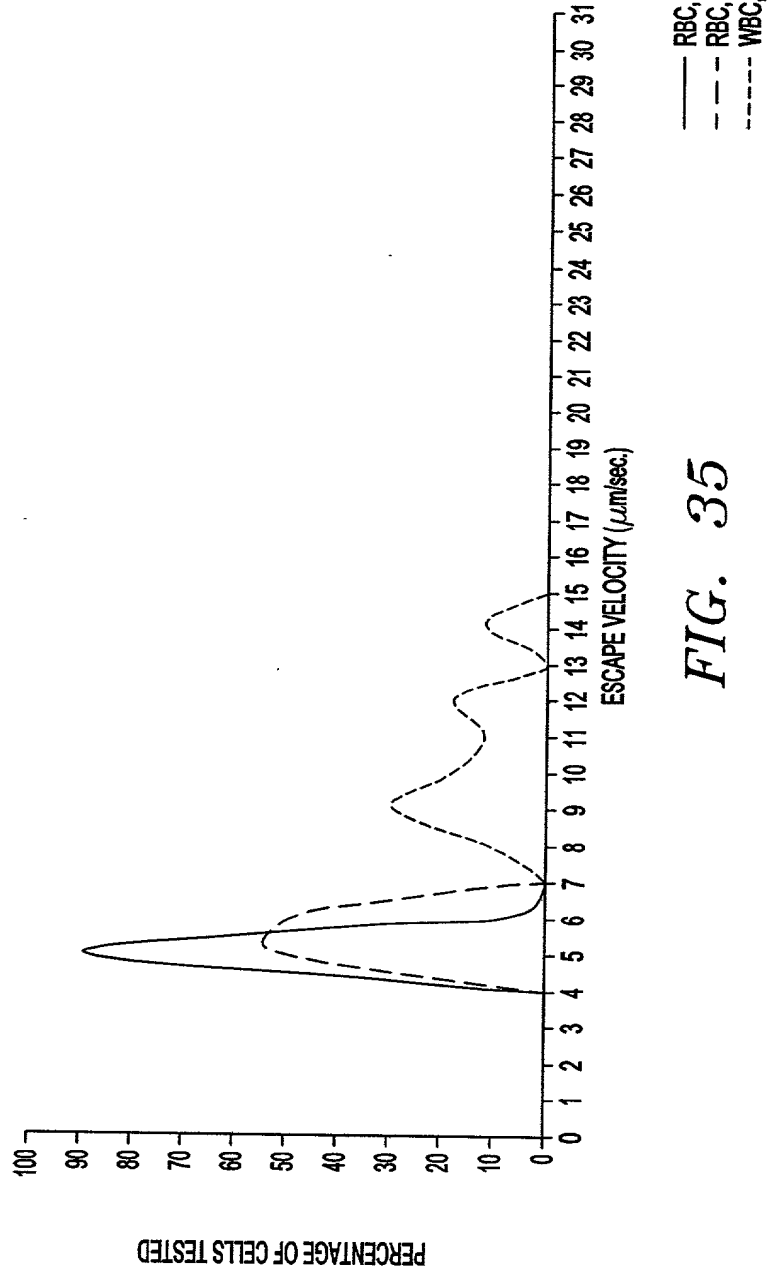
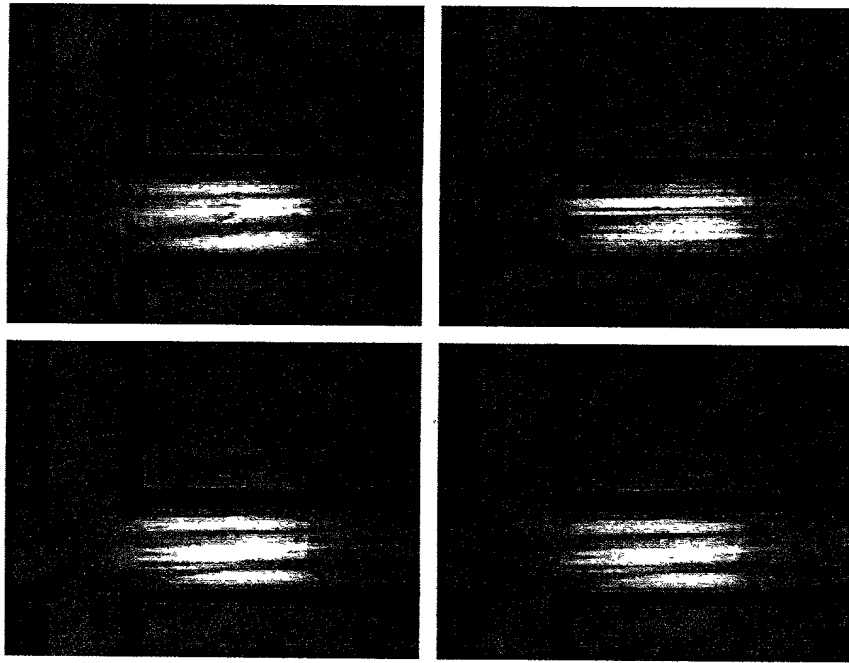


FIG. 35

2810  
JUN 19 1960  
U.S. AIR FORCE  
RESEARCH AND DEVELOPMENT  
DIVISION



*FIG. 36*

200070-54254860